Апотеу Docket No. 13716 2058-181

#### REMARKS

#### I. AMENDMENTS TO THE SPECIFICATION

This Response and Amendment amends the Specification on page 3, lines 24-27; page 7, lines 14-17; and page 7, line 24 through page 8, line 5. These Specification Amendments delete the word "di triazole" and add the word "di-triazole". The 1,2,4-carbonyl di-triazole reagent is correctly stated in the Specification on page 7, line 18, and page 10, lines 17-18. This amendment corrects an obvious typographical error and does not add new matter. An attached separate page provides the "VERSION OF SPECIFICATION AMENDMENTS WITH MARKINGS TO SHOW CHANGES" as required by the rules. Entry of these amendments is respectfully requested.

## II. AMENDMENTS TO THE CLAIMS

This Response and Amendment amends Claims 4, 15, and 19. An attached separate page provides the "VERSION OF AMENDED CLAIMS WITH MARKINGS TO SHOW CHANGES" as required by the rules. These amendments do not add new matter as detailed below. Entry of these amendments is respectfully requested.

### Claims 4 and 15:

Claims 4 and 15 are amended to delete the word "di triazole" and add the word "di-triazole". The 1,2,4-carbonyl di-triazole reagent, listed in Claims 4 and 15, is correctly stated in the Specification on page 7, line 18, and on page 10, lines 17-18. This amendment corrects an obvious typographical error, does not alter the scope of Claims 4 and 15, and does not add new matter.

#### Claim 19:

Claim 19 is amended such that the phrase "an organic molecule" now reads "a biological molecule." Support for this amendment is found in the Specification on page 4, line 22, which states "[b]iological molecule as referred to herein encompasses any organic molecule ....", and page 10, line 9 through page 11, line 25, which describes an Example for

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"biological molecules attached to the activated solid support" (Specification, page 10, line 26) for both a humid and non-humid chamber. The terms "biological molecule" and "organic molecule" are used interchangeably in the Specification on page 4, lines 22-28. This amendment clarifies Applicants' invention, does not alter the scope of Claim 19, and does not add new matter.

## III. RESPONSE TO THE RESTRICTION REQUIREMENT

Claims 19 are pending in the application and subject to an Election/Restriction requirement under 35 U.S.C. § 121 as stated in numbered paragraphs 1.I-1.III on page 2 of the Office Action mailed November 25, 2002. Applicants respectfully traverse the Election/Restriction and request reconsideration and withdrawal of the Election/Restriction based on the following remarks.

## A. Restriction Is Improper For Groups I and III That Are Classifiable Together.

The Office Restricts Applicants' invention to Groups I and III on page 3, numbered paragraph 4 on the basis that "Groups I and III are drawn to different methods." In support of the Restriction, the Office states "Group I is for attaching a biological molecule . . . and Group III is for attaching an organic molecule."

In response, Claim 19 is clarified by deleting the phrase "organic molecule" and adding the phrase "biological molecule". The terms "organic molecule" and "biological molecule", are used interchangeably in the Specification (e.g., page 4, lines 22-28).

This amendment to Claim 19 obviates the Examiner's basis for Restriction between Groups I and III, as stated in numbered paragraph 4 of the Office Action. Each of independent Claims 1, 12, and 19 are directed to the same method, *i.e.*, a "method of attaching a biological molecule..." and are classifiable and searchable together. Restriction of an invention that is classified together is improper, unless the Office provides evidence of separate status in the art, and also a separate field of search. Where the classification is the same and the field of search is the same and there is no clear indication of separate future classification and field of search, no reasons exist for dividing among related inventions. MPEP § 808.02.

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Accordingly, Applicants respectfully request withdrawal of the Election/Restriction on this basis, or alternatively that Groups I and III (Claims 1-15, and 18-19) are Grouped together.

B. Restriction Between Groups II and III Is Improper Absent A Showing Of Distinctness.

The Office states in numbered paragraph 5, pages 3-4 of the Office Action that "Groups II and III are not related." Claim 19 (i.e., Group III) has been amended to clarify that the invention is directed to "biological molecules". Groups II and III are both directed to "biological molecules" and are related as a product and process of making. For appropriate restriction, the Office is required to show distinctness between the inventions. MPEP § 806.05(f). The Office has not alleged distinctness, as required under MPEP § 806.05(f). Applicants respectfully request withdrawal of the Election/Restriction on this basis, or that the Office demonstrate a viable alternative process or product as required by the rules.

# C. Three-Way Restriction Between Groups I and III, Classifiable Together, And Related Group II Is Improper.

The three-way restriction between Groups I and III, each directed to the same method, i.e., a "method of attaching a biological molecule . . . ." and Group II is improper. As detailed in paragraph A., infra, Groups I and III are classifiable and searchable together.

Group I (Claims 1-15, and 18) and Group III (Claim 19) are both related to Group II (Claims 16-17) as process of making and product made. The three-way restriction between Groups I, II, and III is unduly burdensome on Applicants and is not supported by U.S. Patent Office practice and procedure. If the Office does not withdraw the Election/Restriction entirely, Applicants request a two-way Election/Restriction with one Restriction Group that includes Claims 1-15, and 18-19 together.

#### D. Provisional Election.

If, notwithstanding Applicants' present request for reconsideration, the Examiner maintains that an Election/Restriction Requirement of some nature should be made, Applicants

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provisionally elect, with traverse, Group I, Claims 1-15, and 18. The species 1,2,3-carbonyl di-triazole, as shown below, is provisionally elected

1,2,3-carbonyl di-triazole

In the generic structure L<sub>1</sub>-X-L<sub>2</sub>, L<sub>1</sub> and L<sub>2</sub> are triazole, i.e.,

,  $\longrightarrow$   $\stackrel{N}{\longrightarrow}$  and X is

carbonyl, i.e., -

Claims 1-15, and 18-19 are readable on the elected species, 1,2,3-carbonyl di-triazole.

#### CONCLUSION

If there are any issues that can be resolved by telephone with the Applicants' representative, the Examiner is encouraged to contact the undersigned directly.

No fees are believed due by this Response. If, however, any fees are due, the Commissioner is authorized to charge any other fees or credit any overpayment associated with this Response and Amendment to Deposit Account No. 19-2090.

Respectfully Submitted,

SHELDON & MAK a Professional Corporation

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# VERSION OF SPECIFICATION AMENDMENTS WITH MARKINGS TO SHOW **CHANGES**

#### Beginning on page 3, line 24 and ending on page 3, line 27:

These features, aspects and advantages of the present invention will become better understood with regard to the following description, appended claims and accompanying drawing which shows the steps of the method of the present invention using 1,2,4-carbonyl [di triazole] di-triazole as the activating compound.

### Beginning on page 7, line 14 and ending on page 7, line 17:

A preferred activating compound is 1,2,4-carbonyl [di triazole] di-triazole, which has the formula:

## Beginning on page 7, line 24 and ending on page 8, line 5:

The chemical reaction that occurs in the first step is a nucleophilic substitution reaction between the activating compound and the available amino group on the solid support. A first leaving group, L<sub>1</sub> of the activating compound, becomes displaced by the available amino group on the solid support to form an activated support. When 1,2,4-carbonyl [di triazole] di-triazole is the activating compound, the activated support has the following structure:

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#### VERSION OF AMENDED CLAIMS WITH MARKINGS TO SHOW CHANGES

- 4. (Amended) The method of claim 1 wherein the activating compound is 1,2,4-carbonyl [di triazole] di-triazole.
- 15. (Amended) The method of claim 12 wherein the activating compound is 1,2,4-carbonyl [di triazole] di-triazole.
- 19. (Amended) A method of attaching [an organic] <u>a biological</u> molecule to a solid support, the method comprising the steps of:
  - (a) activating the solid support; and
  - (b) reacting the [organic] biological molecule with the activated support in a humid chamber, having a humidity of at least 60 percent relative humidity.